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ABSTRACT

This paper explores the emerging shift away from highly specialized, self-centered value systems to more collaborative and integrative approaches in the fields of art, business, and in primary and secondary education. How these new applications are expressed in each field is discussed in the following areas: the Art in Public Places Movement; development of Total Quality Management; and restructuring of curriculum, instruction, and governance within the learning environment. Concluding remarks address the synergistic opportunities created through collaboration, shared resources, and teamwork. (GR)

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ONE + ONE MAKES THREE

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From an early age we all struggle with what it means to share things. I remember watching my daughter learn the meaning of "mine" when she was only two years old. It seemed like such a loss of innocence. Up to that point there were few boundaries between her and the outside world. By establishing the limits between what was her's and what belonged to someone else, she initiated her exploration of the complex and contradictory concept of sharing. Her first experience was with dividing up her belongings and giving part of them away. She wasn't completely happy with the idea since at that time it simply meant ending up with less than she started with. It wasn't long before she learned to see the other side of the coin when, at the age of three, she started pre-kindergarten with a class of 30 other little people. Here sharing became something more collective, common, participatory, and even communal. It had to do with giving something up and getting something back in return. Sharing in this context of friendship and fellowship happens in a mysterious and sometimes illogical place where one plus one often makes three. It requires some faith in other people and some trust that they will do their share.

My daughter is now four years old. She is still struggling with the concept. If we are lucky, we learn about the benefits of sharing when we are still very young. For most of us, the complexity and contradiction of sharing is a challenge that we struggle with for much of our lifetimes. We have been led to believe that individual accomplishment is synonymous with the American dream. We are surrounded by a whole industry of promoters, professional managers, lawyers, publicists and advertising agents who earn high fees advocating a wide range of heroic agendas based on individual achievement and gain. By comparison, the limited resources available to more collaborative enterprises has, in the past, contributed to a perilous loss of balance between individual rights and communal responsibility. This loss has been well documented in recent articles and publications. [1]

There is an emerging shift away from highly specialized and self-centered value systems. The alternative approach recognizes the dualism inherent in the nature of sharing and strengthens the dialogue between its opposing forces. The result is not either mine or ours, but both mine and ours. This shift is the foundation of a more collaborative ethic that has emerged in recent years through a wide range of disciplines. Although the expression of these principles is different within each discipline, there are some common elements. First, there is more room for participation and cooperation. Teamwork is the new way of doing things. In this environment the best idea is more important than my idea and there is more widespread recognition that the success of the team has positive benefits for all of its individual participants. Second, there is a movement away from authoritative forms of leadership, accompanied by an emergence of a new leader known as the "facilitator", whose role is to guide and coach rather than to direct and dictate. Third, there is an expanding institutional and economic support system to

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provide stability for and fuel the growth of the emerging collaborative ethic. Fourth, there is a reorganization of parts relative to the whole. Even as new disciplines and specialties, like genetics and the computer sciences, continue to develop independently, there is at the same time a renewed interest in the holistic relationship of all disciplines. The qualities of this reorganization are inclusive, integrative, and often synergistic or ecological in nature. Here we will examine their emergence in three primary disciplines, the arts, business, and in primary and secondary education. In the arts these principles are manifest primarily through the movement surrounding Art in Public Places, and in business through the rapid development of Total Quality Management (TQM) and other concepts involving participatory management. In primary and secondary education, they play a key role in the current movement to restructure curriculum, instruction and governance. In a sometimes related set of discussions, there is also much to be gained from recent studies related to the physical sciences. [2]

Art in Public Places

The application of these principles in the arts is centered around some fundamental changes concerning both the definition of the artist and (his/her/their) audience. These changes generally follow the four common elements previously outlined: First, since the beginning of the Art in Public Places movement, there has been an ongoing and accelerated interest in the idea of collaboration and teamwork. Although many artists argue that collaboration sacrifices the artistic integrity of their work, others are exploring new approaches for creating objects of artistic quality through the same kinds of integrative and synergistic concepts that are being employed in other disciplines.. Second, a new kind of arts professional, known as the Public Arts Administrator, has evolved. Instead of the authoritarian art critic or curator, the role of the public arts administrator is more hands-on and participatory. This participation requires an interdisciplinary focus that incorporates special skills in executing everything from business contracts to complex human interactions. In this way, the Public Arts Administrator is a facilitator in terms of leadership style and implementation process. Third, there is a growing and widespread institutional and economic support for the new generation of Art in Public Places. [3] Fourth, there is an inclusive, integrative and synergistic dimension to the new public art movement. [4]

Borrowing and Lending

When seen as a whole, the changes that have occurred in the arts— and even more so in other disciplines, like business and education in the latter half of the twentieth century, represent a significant departure from previous practices in modern times. These changes are all part of a new inter-disciplinary order that embodies the principles of integration, collaboration, and a larger sense of holism that is breathing new life into the old self-centered and separatist paradigm. "Both economics and meteorology are being transformed at present by the new mathematics of Chaos theory. Geology is being profoundly changed by the physics of matter, archaeology by the genetics of DNA typing, history by psychological, statistical, and technological analysis and techniques. An American, James M. Buchanan, received the 1986 Nobel Prize in Economics for applying recent economic theory to the political process and thereby standing on their heads the assumptions and theories on which political scientists had based their work for over a century." [5]

At the University of California in Berkeley, Dr. Leonard Duhl, a psychiatrist and urban planner, has spent the last 25 years applying integrative and collaborative principles to the design of cities. His "healthy cities"

movement now includes over 1000 cities worldwide that have redirected their planning process into a more holistic framework in which a broad range of disciplines work together. In his book The Social Entrepreneurship of Change, Duhl sets forth his views on health care, urban planning, unemployment, education, ecology, and "how to think about planning creatively in new ways which overcome the paralysis inflicted on us by our present, largely defunct cognitive institutional structures"[6] But though there are significant examples to the contrary, a truly collaborative vision is still struggling to find its way into the larger arena of inter-disciplinary cooperation. Like the mythical tower of Babel, the barriers imposed by language and prolonged isolation present a formidable impasse. The bridges that will span the impasse are still being designed. In the words of the noted developmental biologist Dr. Victoria Elizabeth Foe, "This is biology's golden age. It's analogous to cathedral building of a thousand years ago. We are building this great edifice. Some of us are building arches, some painting murals, some carving in stone. I feel enormously privileged to be alive now and to be apart of it."[7]

But the principles of integration and collaboration are merely the conceptual framework of the process whereby more people are experiencing the power of synthesis and the fine art of working together. Actually achieving the desired result is much more elusive. It is not just by chance that the term collaboration, used here to illustrate the goal of people working together, also means "cooperating with the enemy". The development of a truly collaborative process depends largely on the ability of its participants to grapple with the details of interpersonal communication and to execute these details with precision and grace. The analogy of the cathedral chosen by Victoria Elizabeth Foe is an especially appropriate illustration of the need to explore all dimensions of the process. In the cathedral, beauty has been achieved through an artistic synthesis of the skills and talents of its many participants. As architect and historian, Keith Critchlow, has illustrated, it is not merely integration, but a complex form of harmony and a sense of the sacred that occupy the holistic soul of cathedral building.[8]

The Arts Can Make a Difference

It is in the realm occupied by the illusive principles of concord that the arts will make its most important contribution to the new ethic of sharing. Artists are by nature great synthesizers. The creative act is one of sublime assimilation. When this creative act involves more than one person, as in the case of theater, dance or music, the assimilation of personalities can, like the great cathedral, be a holistic and soulful union, incorporating intangible qualities that transcend those of the individual performer. One example often used in reference to these intangible qualities is jazz.

In its primitive form, Dixieland jazz provides an excellent example of the mutual compatibility of individual and team goals. The band usually starts out with all of the players sitting down. For the first few minutes, everyone plays together. Then, in an ordered sequence, each musician plays a solo variation on the same melody. Here there is an opportunity to experience not only the individual character of each instrument, but also the personal style and embellishment of the individual performer. These personal interpretations are followed by a denouement, where the entire band stands up and plays the melody in concert. The result is a celebration of individual styles and tones within a common emotional and rhythmic framework. But the framework of jazz is not what gives it magic. Underlying the physical form is a deep and elusive layer of artistic communication that brings its form to life. In order to accomplish this highly sophisticated level of communication, the musicians must collaborate synchronistically. In the words of

the noted Dixieland clarinetist, Willie Humphrey, "We have an understanding." [9]

In progressive jazz, this synchronism is known as "swinging". Wynton Marsalis is an eight time Grammy award winning musician and, at the age of 32, one of the most influential and highly respected progressive jazz musicians in the world. Marsalis was born and raised on New Orleans jazz. When he was seventeen years old, he went to New York to study music at Julliard and to apprentice with the noted jazz legend Art Blakey. "Here I was, a young New Orleans musician with a little knowledge of jazz, and there he was, a world class musician. One of the things that was hard for me to understand early on was why Blakey would invite me to play on his bandstand." says Marsalis. But Blakey has a sense of responsibility. Part of it is because there is a tradition in jazz that older musicians teach younger musicians the tools of their trade. Another reason is that a single weakness can be a fatal flaw for a jazz band. Since there are relatively few performers on the jazz bandstand, every band member must perform at a high level or the total sound will suffer. As Marsalis says, " Its all about democracy and responsibility. We are all responsible for helping each other. When I went to play music with Blakey, I knew how to play the notes but I didn't know how to swing. Art Blakey taught me how to swing."[10]

Swinging is not a part of the jazz form as much as it is a part of the jazz process and execution. It evolves from the relationships that are established between performers. The deep underlying currents of concord operate in this intangible realm. Herein lies the opportunity for collaboration, integration, and synthesis at its most sublime. It is also in this realm that the complex and contradictory concept of sharing achieves its most noble form. It is here that both mine and ours come together as one.

But the beauty that we enjoy in the concord of the jazz band can be seen as a metaphor for the need that we sense for more meaningful and purposeful dimensions in our lives and in the world around us.

Re-inventing the Corporation

The search for more meaningful dimensions of communication and collaboration is not limited to the arts. In his exploration of the relationship between ego and participation, Joseph Campbell has observed a primitive and even biological imperative toward collaboration and an even more mystical search for community.[11]

In the world of business, the movement towards an ethic embodying participatory and cooperative ideals began in the late nineteenth century through the work of Frederick Winslow Taylor. Taylor's main motivation was the creation of a society in which owners and workers, capitalists and proletarians, could share a common interest in productivity and could build a harmonious relationship. Taylor's ideas evolved slowly until the late 1940s when Dr. Edwards Deming found a receptive climate for their expansion. At that time, Deming approached some of the largest corporations in America with a plan to restructure leadership and management to focus on quality, which is the capstone of his philosophy. According to Deming, a significant increase in quality would be achieved through continuous improvement. This improvement would in turn be contingent on a management philosophy based on participation and cooperation.[12]

In the late 1940s corporate America was not ready for this kind of change. Steeped in an authoritative and hierarchical system of management, in which workers do as they are told to do from someone higher on the authoritative ladder, the giants of American industry scoffed at Deming's ideas. But, in 1950, Deming was invited by the Union of Japanese Scientists and Engineers to speak to their leading industrialists who were concerned about breaking into foreign

markets and about Japan's reputation for poor quality goods. Deming convinced them, despite their reservations, that Japanese quality could be the best in the world if they instituted his methods, including participatory management and quality circles. The industrialists took Deming's philosophy to heart, and the rest is history.

As low cost and high quality Japanese products started to flood the U.S. marketplace in the late 1960's and early 1970's, corporate America began to have a change of heart. By 1978, Lockheed had become one of the first major U.S. corporations to experiment with participatory management and quality circles on a grand scale. Top management theorists started to scramble for more information. In 1982 Tom Peters and Robert H. Waterman Jr. reported on the phenomenon in: In Search of Excellence, a study of companies who were, for the most part, finding ways to adapt to what by then had become known as the "Japanese Model". A new forum called the International Association of Quality Circles was formed. The Ford Motor Company began experimenting with the idea through its Taurus Team, a collaborative experiment that resulted in one of the most successful products in all of automotive history. By the middle of the 1980's a flood of publications appeared espousing the virtues of the new management revolution. Central to the discussion was the role of leadership. For the most part, the new leader was seen to be more like that of the conductor of an orchestra, wherein the real work of the organization is done by the people in it, just as the music is produced only by the members of the orchestra.[13]

This emergence of the leader as a group facilitator was antithetical to the heroic chief executive whose omnipotent presence had commanded the corporate ship for more than a century. Most of corporate management had been well schooled on how to give orders and "kick butt" whenever anything went wrong. There was suddenly a new way of doing things that was making more money and producing better products through collaboration. It didn't make a lot of sense to much of the old guard, but by then Nissan and Sony were well into proving Dr. Deming's point. The result was that corporate America had to move quickly to make way for the new changes. As John Naisbitt and Patricia Aburdene point out in their 1985 publication, Re-Inventing the Corporation: "We are living in one of those rare times in history when the two crucial elements for social change are present— new values and economic necessity. You must have both. Neither force is powerful enough to produce social change on its own. There must be a confluence of both changing values and economic necessity. And that is precisely what we have now: new humanistic values and global economic imperatives..."[14] By this time corporations were spending millions on training their executive staff as well as line workers in how to work better together. A new set of promoters emerged, but instead of promoting heroes, they were being paid high fees to promote teamwork. Organizations like the National Training Labs and the Center for Creative Leadership emerged as the mentors for this new age army of collaborative change masters.

As the movement continued, a whole menu of management instruments developed. For the most part, these tools were assembled under the mantle of something called "Total Quality Management," a more or less unified theory of management closely aligned with an even more highly integrated framework of systems theory. In 1987, Howard and Shelly Gitlow published the Deming Guide to Quality and Competitive Position outlining the 14 "points" of the Deming model. However, even as they were seeking to codify the process, they were also quick to point out the holistic underpinnings of Deming's vision.[15] In 1990, Peter Senge published The Fifth Discipline, outlining his own interpretation of the new participatory

ethic with five general attributes: 1) Mental Models, 2) Shared Vision, 3) Team Learning, 4) Personal Mastery, and 5) Systems Thinking.[16] Current theory is moving consistently toward an enlightened state of teamwork and systems theory that allows groups of people to work together in a state beyond what we have come to know as collaboration. Through the work of people like Michael Schrage, even interactive computer technology has entered the picture as an impressive tool for achieving a more elevated form of communication where teams function with an increasingly more integrated and holistic purpose.[17]

Redesigning the Learning Environment

A similar revolution involving participatory and integrated systems concepts is occurring in the field of education. The changes are most pronounced at primary and secondary educational institutions. They are for the most part systemic in nature, impacting everything from governance to curriculum and instruction. In the area of governance, many K-12 school districts have instituted the concept of site-based management, where a significant amount of decision making is being redistributed from the district level to individual school sites. In 1989, the Chicago Public School system began radical restructuring to shift decision making authority from a central bureaucracy to the parents, principals, and teachers at each of Chicago's 540 public schools. The Chicago change strategy follows the methods and concepts of Total Quality Management.[18]

Participatory management strategies have also found their way into the classroom. Here, the role of the individual teacher is slowly but steadfastly moving away from the authoritarian model. The ideal teacher is now more like that of a facilitator or coach: "If we accept that the purpose of any organization, public or private, is to build a quality product or perform a quality service, then we must also accept that the workers in the organization must do quality work and that the job of the manager is to see that this occurs. In school, the students are the workers, and right now almost none are doing quality work in class. Those who manage in the schools—teachers who manage students directly and administrators who manage teachers and some students—are in most instances highly dedicated, humane people who have tried very hard but have yet to figure out how to manage so that students do significant amounts of quality work."[19] The result of this paradigm shift in the way that education professionals relate to their constituents is having a profound effect on the ambiance of the total learning environment: " Lead-managers are much more willing than boss-managers to allow the workers to have a part in determining what is the best way to do the work. To accomplish this, the lead-teacher spends a small part of almost every class asking for students' input on how more can be learned or what can be done to make the class more enjoyable. The teacher does not reject the idea of rewards but believes that the class should set its own rewards if it judges that it is doing good work.[20] In the words of a student at the Apollo High School in Simi Valley, California:

> A boss drives. A leader leads.
> A boss relies on authority. A leader relies on cooperation.
> A boss says "I". A leader says "WE".
> A boss creates fear. A leader creates confidence.
> A boss knows how. A leader shows how.
> A boss creates resentment. A leader breeds enthusiasm.
> A boss fixes blame. A leader fixes mistakes.
> A boss makes work drudgery. A leader makes work interesting.[21]

The changing needs of the student are a

primary concern in educational restructuring. More emphasis is being placed on the development of knowledge that will be appropriate for the changing role of the worker in society. As a result, the need for a more integrated and holistic framework for learning is becoming more paramount. "Tomorrow's successful employees will have to be problem solvers, decision makers, adept negotiators, and thinkers who are at home with openness, flexibility, and resourcefulness. They must be able to deal with uncertainty, complexity, the global village, the information explosion, other technologies, and many different cultures—and still maintain a set of values that foster an adequate degree of individual stability, integrity, and social harmony. It will not be enough for people to have acquired a store of nontransferable facts. They must have understood and internalized content, such as math, economics, and history, sufficiently to make it available spontaneously, appropriately, and in many different contexts." [22] One of the most relevant and successful models for accomplishing these goals is being developed through research on the functional characteristics of the human brain. Much of this research centers around the work of Paul MacLean, former director of the Laboratory of the Brain and Behavior at the U.S. National Institute of Mental Health. MacLean's theory is popularly referred to as the "triune brain theory" because he suggests that the brain is actually three brains in one. They include the reptilian system or R-complex, the limbic system, and the neocortex. Each layer is geared toward more or less separate functions, but all three layers interact substantially. The application of research in this area centers around something called brain based learning: "Among the features of brain-based learning are active uncertainty or the tolerance for ambiguity; problem solving; questioning; and patterning by drawing relationships through the use of metaphor, similes, and demonstrations. Students are given many choices for activities and projects. Teaching methods are complex, lifelike, and integrated, using music and natural environments. Brain-based learning is usually experienced as joyful, although the content is rigorous and intellectually challenging and students experience a high degree of self-motivation. It acknowledges and encourages the brain's ability to integrate vast amounts of information. It involves the entire learner in a challenging learning process that simultaneously engages the intellect, creativity, emotions, and physiology. It allows for the unique abilities and contributions from the learner in the teaching-learning situation. It acknowledges that learning takes place within a multiplicity of contexts—classroom, school, community, country, and planet. It appreciates the inter-penetration of parts and wholes by connecting what is learned to the greater picture and allowing learners to investigate the parts within the whole."[23]

The integrative and synergistic concepts of brain-based learning include all aspects of the learning environment including the full spectrum of sensory experiences. "A safe general rule, therefore, is to ensure that all senses be engaged in the design of experiences for students and that students need to have deep and rich sensory experiences of whatever is to be learned. The notion of multisensory representations can be expanded to include the combination of feeling and thought."[24] The multisensory component of brain-based learning has significant implications for the physical environment . "In effect, the entire sensory environment is "packaging" for any specific issue or content with which we are faced. Our context is meaningful and affects us, whether or not we are consciously aware of the consequences. That is why part of the solution is to create what George Leonard (1987) calls a 'total environment.' "[25]

These concepts of integration have found

their way into the restructuring of primary and secondary school curriculum. Faced with a continuing decline in students' tolerance for isolated information, educators have instituted changes based on progressive models for sharing information. Instead of delivering information in discrete packages with labels like Mathematics, Science, English and Social Studies, educators are integrating educational content around a more "meaning centered" curriculum that emphasizes the common elements and principles of core educational content that can be found in a wide variety of disciplines. In order to implement the new integration of content, educators from the different disciplines have also discovered the joy of collaborating by physically bringing their classrooms and students together in a forum of team teaching and cooperative learning.

Teamwork Is Not For Everyone

The changes that have occurred in the arts, business, education and other disciplines in recent years clearly point to an increased awareness in the benefits of successful collaboration and teamwork. However, many people lament the decline in the role of authority and uninhibited individualism. As has already been mentioned, many artists have found the process of collaboration to be far too compromising. Many arts institutions maintain that the making of art, and especially fine art, was never meant to be a shared experience. Notions of collective and interdisciplinary decision making are viewed in this context as compromising, and threatening to the sanctity of the artistic experience. In business, there is also skepticism. Many would argue that the new order is a fad rather than a trend. Others point out that most of the changes are economically rather than morally driven. There is much discussion about management's real motivation and commitment to teamwork, and an ongoing debate about where to draw the line between individual and collective decision making. Although collaboration is clearly the best tool for making many decisions, those involving complex financial or confidential issues can not always be arrived at through consensus. The result is that workers oftentimes experience a sense of betrayal which leads to a loss of confidence or trust in the process as a whole. In education, many parents are not all that happy with the new paradigm. Many have criticized their appointed officials for what they see as an unwillingness to provide real leadership. Many fundamentalist organizations have organized campaigns to make teachers more responsible for order in the classroom, arguing that the real effect of the new participatory paradigm is to empower children to lose respect for authority and "talk back to their parents." The Christian Coalition, a conservative voice in the debate, argues that students should just be taught content without all of the fuss over the need to develop more critical thinking skills.

In the realm of art and architecture many would argue that the movement is just another counter-cultural brush with collective value systems like the peace, brotherhood and "advocacy planning" days of the late nineteen sixties and early seventies. If this is the case, things probably won't change very much. Down the road we could expect more of the same amusing shifts that have dominated the arts for decades; from modern to pop, pop to post-modern; post modern to deconstructivism and on and on. If, on the other hand, the changes are more genuine and enduring, the opportunity will exist for more revolutionary changes in artistic expression. In the past, politically democratic or spiritually collective visions have evolved into successfull integrative art forms. Indeed these are some of the most powerful and memorable manifestations of the art spirit. From the Acropolis in Greece to Islamic temples and Medieval cathedrals, we are

reminded of painters and sculptors working in tandem with mathematicians, geometers, priests and poets to decipher the sacred aesthetic codes. It seems foreign as we look out from the ivory towers of our own era. It is difficult to imagine what the relationships must have been like between the participants. We can be sure that it wasn't easy, but for some larger purpose, they seem to have endured.

The public and community arts movement of the past thirty years is a crude re-awakening of the same communal value system. Still in its infancy, it is hampered by those who see it as awkward and impure. Perhaps the new expression will continue to evolve through further modifications of current art forms. On the other hand, new tools could speed up or significantly modify the transition. The tools of communication, the life blood of collaboration, have now reached previously unimagined dimensions. These communications tools have introduced us to cyberspace, a realm where messages are stored and retrieved in another time frame. It is an electronic place where people meet and develop relationships. It is a space with unlimited dimensions, a sacred frontier where geometers plot three dimensional shadows of four dimensional hyper-objects. But with or without its digital counterpart, the metaphor of communications in cyberspace could portend the future of collaboration and of art and architecture in the decades ahead. It is a metaphor of extra-dimensional communication and assimilation unavailable to those traveling alone.

One Plus One Makes Three

The modern search for a more integrative and participatory value system has been underway for at least 40 years. At different times and by different people it has been called a management revolution, an educational revolution and a scientific revolution. Some have pointed the way to a higher purpose, one that transcends individual accomplishment and seeks holism through a combination of all human resources. [26] Others see it as a socio-economic phenomenon.[27] But at the heart of the massive changes that are only now emerging is the underlying search for a collective spirit. This spirit is one that acknowledges the value of the intra-personal explorations of the modern age and seeks to merge these experiences of self discovery with the inter-personal attributes of teamwork and community. The only real imperative in the exploration is the need to synthesize resources and join forces in learning how to work better together. As we have seen, the arts can contribute constructive examples of enlightened forms of communication that reveal themselves through music and through the making of participatory and integrative structures, like public and community art. The key elements of the transformation will be new levels of trust and generosity, and a belief that there is a way to divide up the pie so that the pie gets bigger. It will be grounded in the emotional limits of inter-personal relationships and elevated by the dynamic laws of synergy and holism, where the mental, physical, biological and spiritual whole is greater than the sum of its many parts.

The vehicles for sharing at the community level are expanding to lend their support. Every day more people are exposed to ideas like participatory management in the workplace and a whole new generation of children will soon be educated through a set of integrated learning principles. More and more sophisticated electronic communications systems allow participants to exchange information and ideas with each other at all hours of the day and night. Before my daughter reaches her tenth birthday technology will make it possible for her to communicate and share her ideas with almost anyone in the world through voice, data and video images no matter where she happens

to be located in time or physical space. These and other vehicles represent an expanding supply of tools with which a sense of sharing that flourished in more enlightened times can possibly be reconstructed. Fortunately, our democratic form of government provides an environment wherein opportunities for participative, collaborative and integrative principles can prosper. We have been given both the right as well as the responsibility to make choices. It is easy to find the ones that benefit us immediately as individuals and difficult to see the ones that bring us deeper and more lasting dividends. In very essential ways, the long term success or failure of democratic systems depends on the choices that we make, and the current movement towards a more equitable balance between individual freedom and communal responsibility is only the vestige of a two hundred year old revolution in which we are all still vitally engaged.

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[1] These ideas are central to the writing and public policy advocated by President Bill Clinton, Robert Reich, Amitai Etzioni, and others.

[2] see: Margaret Wheatley; Leadership and the New Science; 1992; Berrett Koehler Publishers; (from the introduction p.8) "The new science research referred to comes from the disciplines of physics, biology, and chemistry, and from theories of evolution and chaos that span several disciplines. Each chapter inquires into metaphorical links between certain scientific perspectives and organizational phenomena, but it may be useful first to say something in general about the directions of new science research.

Scientists in many different disciplines are questioning whether we can adequately explain how the world works by using the machine imagery created in the seventeenth century, most notably by Sir Isaac Newton. In the machine model, one must understand parts. Things can be taken apart, dissected literally or representationally (as we have done with business junctions and academic disciplines), and then put back together without any significant loss. The assumption is that by comprehending the workings of each piece, the whole can be understood. The Newtonian model of the world is characterized by materialism and reductionism—a focus on things rather than relationships and a search, in physics, for the basic building blocks of matter.

In new science, the underlying currents are a movement toward holism, toward understanding the system as a system and giving primary value to the relationships that exist among seemingly discrete parts. Donella Meadows, a systems thinker, quotes an ancient Sufi teaching that captures this shift in focus: 'You think because you understand one you must understand two, because one and one makes two, but you must also understand and.' When we view systems from this perspective, we enter an entirely new landscape of connections, of phenomena that cannot be reduced to simple cause and effect, and of the constant flux of dynamic processes."

see also: Fritchov Capra; The Tao of Physics

[3] " In 1965, when the National Endowment for the Arts was created, there were only a handful of ongoing public art programs in this country. In 1988, there are (were) at least 135 annually funded programs at the state and local levels with many more single projects undertaken by communities. In the last 20 years over 518 art in public places projects in 47 states and the District of Columbia have received NEA matching funds. The last significant period of federal support for public art (prior to 1967) occurred during the 1930s with the Works Progress Administration (WPA) and Treasury Section Art Programs. The character of support for public art in 1988 is markedly different from the WPA period, and the change is most clearly seen in the local origins of most projects, as contrasted with the centralization of the WPA period. Today, instead of a single program radiating out, we have hundreds of independent projects underway, many of which begin with good intentions and end, as they rightly should, as small, community-based projects which achieve their financial, artistic, and social goals through an ad hoc process. Other projects, or ongoing programs have larger civic ambitions and undertake a lengthy process as they work with and through government agencies, define the goals of their project, seek out and select artists, meet with diverse community groups and enter into contracts for the creation and long-term care of artworks.....Jeffrey L. Cruikshank and Pam Korza; Going Public; A field guide

to developments in art in public places; Arts Extension Service, University of Massachusetts; 1988 ; (p 5-Forward by Richard Andrews)

[4] "Evidence of this expanded view of public art and its power to transform daily experience is suggested by the mix of disciplines represented at the recent NEA supported meetings. Participants included artists, architects, developers, urban planners, conservators, lawyers, administrators, educators, art historians, and curators from both corporations and museums. .....Similarly, artists are beginning to interact as peers with architects and landscape designers.....Many artists now working in the public domain have made the social imperative of public art a primary focus. It is the means, as well as the end. Some even believe that the expression of the individual hand —of a private vision—no matter how searching, authentic, or original—must be displaced by a communal vision, tuned more to the factual characteristics of site and the activities of the user than to the idiosyncratic signature or psychology of the artist." .....Jeffrey L. Cruikshank and Pam Korza; Going Public: A field guide to developments in art in public places; Arts Extension Service , University of Massachusetts; 1988 (p.11-from "Stretching the Terrain" by Kathy Halbreigh)

[5] Peter F. Drucker; Post Capitalist Society; Harper Collins Publishers, Inc, 1993 (p. 217)

[6] Dr. Leonard Duhl; The Social Entrepeneurship of Change; Pace University Press; 1990

[7] Natalie Angier; The New York Times; "Drawing Big Lessons from Fly Embryology; 1993; (p. C-1)

[8] Keith Critchlow

[9] Willie Humphrey: From a personal interview at Preservation Hall, New Orleans, 1993.....At 92, Willie Humphrey is the oldest active jazz musician in New Orleans. He was taught by his grandfather, "Professor" James Humphrey on violin and, later, clarinet. His band mates have included such luminaries as Joe "King" Oliver, Freddie Keppard and Kid Rena. He traveled extensively in the late 1910s and 1920s, playing clarinet and saxophone on Mississippi riverboats. He taught music in New Orleans in the 30s and 40s. He has recorded with Sweet Emma Barrett and Paul Barbarin and has toured the world. He can still be seen performing at Preservation Hall in New Orleans.

[10] Wynton Marsalis; (From a talk to the patrons of the New Orleans Center for Creative Arts; New Orleans, Louisiana, 1993)

[11] Joseph Campbell; The Masks of God: Primitive Mythology; Penguin Books; 1959, 1969 (revised) (p. 81) "Even from the point of view of a strictly biological observation it can be shown that in a certain sense the indissociation of the child has a deeper validity than the adult experience of individuation. Biologically, the individual organism is in no sense independent of its world. For society is not, as Ralph Linton assumed, a group of biologically distinct and self-contained individuals.' Nor is society, indeed, apart from nature. Between the organism and its environment there exists what Piaget has termed 'a continuity of exchanges.' An internal and an external pole have to be recognized, 'but each term is in a relation of constant equilibrium and natural dependence with respect to the other.' And it is only relatively slowly that a notion of individual

freedom and sense of independence are developed—which then, however, may conduce not only to a manly sense of self-sufficiency and an order of logic in which subjective and objective are rationally kept apart, but to a deterioration of the unity of the social order as well, and to a sense of separateness, which may end in a general atmosphere of anxiety and neurosis. It has been one of the chief aims of all religious teaching and ceremonial, therefore, to suppress as much as possible the sense of ego and develop that of participation. Such participation, in primitive cults, is principally in the organism of the community, which itself is conceived as participating in the natural order of the local environment. But to this there may be added the larger notion of a community including the dead as well— as, for example in the Christian idea of the Church Militant, Suffering, and Triumphant: on earth, in purgatory, and in heaven. And finally, in all mystical effort the great goal is the dissolution of the dewdrop of the self in the ocean of the All: the stripping of self and the beholding of the Face.

[12] Howard S. and Shelly J. Gitlow: The Deming Guide to Quality and Competitive Position; 1987; Prentice Hall, Inc. (p. 9) "Dr. Deming's philosophy necessitates a fundamental change in how organizations are viewed by the people who manage them and by those who work in them. This change will be a lot more palatable for the worker because, generally, workers are aware of many of the organizations' problems and know that they are not the cause of the problems. Managers, on the other hand, must own up to their responsibility and must realize that the systems that they created and perpetuate cause approximately 85 percent of the problem. Nothing can be done about these problems unless there is a change in the system. However, workers have a responsibility in the process, aside from performing their jobs. Their responsibility is to communicate to management the information they have regarding the system. Under the Deming philosophy this is possible because workers and management learn to speak the same language, the language of statistics and process control.

A true cooperative spirit flourishes in this type of environment. Teamwork is a prerequisite for the firm to function and to constantly improve the process. The corporate culture changes so that the workers are no longer afraid to point out problems in the system. Management is actively involved in the never-ending improvement of the process with the workers, and workers are afforded secure and economically rewarding jobs for their efforts. Management creates an atmosphere that encourages pride of workmanship and a belief in the process of never-ending improvement. This will eventually lead to higher quality, reduced costs, and greater profitability. However, these goals can only be reached by a slow, steady, and real change in the organizational environment."

[13] Warren Bennis and Burt Nanus; Leaders; 1985; Harper and Row Publishers: "To summarize, leaders can provide the proper setting for innovative learning by designing open organizations in which participation and anticipation work together to extend the time horizons of decision makers, broaden their perspectives, allow for the sharing of assumptions and values, and facilitate the development and use of new approaches. By learning as much as possible about its changing environment and where it seems to be going, the organization can develop a sense of its purpose, direction, and desired future state. When this sense is widely shared in the organization, the energies of all the members of the organization are aligned in a common direction and each individual knows how his or her own efforts contribute to the overall thrust. With an understanding of where the environment is going and where the organization is heading, it is much easier both to position the organization so as to take advantage of ongoing trends and to

design an appropriate social architecture that supports the overall thrust.

In all of this, the role of the leader is much like that of the conductor of an orchestra. The real work of the organization is done by the people in it, just as the music is produced only by the members of the orchestra. The leader, however, serves the crucial role of seeing that the right work gets done at the right time, that it flows together harmoniously, and that the overall performance has the proper pacing, coordination, and desired impact on the outside world. The great leader, like the great orchestra conductor, calls forth the best that is in the organization. Each performance is a learning experience which enables the next undertaking to be that much more effective or 'right' for the time, place, and instruments at hand. And if in the long run the organization succeeds, it doesn't at all detract from the quality of everyone else's work to suggest that it was the leader who made it possible for the organization to learn how to perfect its contribution"

[14] John Naisbitt and Patricia Aburdene; Re-inventing the Corporation; 1985; Warner Books Inc. (p. 2) ..."The people-oriented values of the 1960s changed a lot of individuals— but no corporations. Sensitivity training for executives came and went. And centralized hierarchies remained intact. Social institutions like the corporation do not readily respond to change instituted by individuals (even if they are transformed and even if there are a lot of them). Corporate change came instead in response to the economic necessity of the 1970s— the demise of industrial America and the stiff economic competition from global rivals such as Japan. Those challenges spurred corporations to experiment with decentralized new models such as small teams and quality control circles— ideas that knocked around the business community unused since the postwar years."

[15] Howard S. and Shelly J. Gitlow; The Deming Guide to Quality and Competitive Position; 1987; Prentice Hall Inc. (p. 6) "Dr. Deming's philosophy is not problem solving, participative management, quality circles, just-in-time inventory, statistical quality control, lifetime employment, automation/robotics, or any other technique that can be learned in a one day seminar or ingested in a two-hour reading. It is a total view and way of organizational life that must be learned relearned, and refined over time in a supportive environment. Then and only then can the tremendous benefits be reaped by the organization and by those in the system."

[16] Peter Senge; The Fifth Discipline; 1990

[17] Michael Schrage: Shared Mind: The new Technologies of Collaboration; 1990

[18] Donald R. Moore: Chicago school reform meets TQM; Journal for Quality and Participation; Jan/Feb 1993 "The foundation of Chicago reform is a legally mandated redistribution of power and resources, which has the following key elements: 1) Elected local school councils (LCSs) were established in each Chicago school, consisting of six elected parents, two elected community representatives, two elected teachers, and the school's principal. More than 5,500 people have been elected to serve on these councils. 2) LSCs have the authority to hire their principal, help develop and approve a plan to set school improvement priorities, and help develop and approve a school budget. 3) The concept of the life-time principal has been abolished. Principals serve for four-year performance contracts, similar to most school superintendents nationally. A special Chicago principals' exam has been abolished and principals need only have state certification,

opening up the process to thousands of new applicants. 4) Principals have increased authority in selecting and supervising staff, and teachers have an increased voice in determining the school's curriculum and in setting school priorities. 5) The authority of the board of education and central administration has been drastically reduced and they are now to focus on setting standards for educational results, providing services to schools, and monitoring school progress and school compliance with basic rules. The reform law puts a cap on the size of the central administration. 6) The law requires that substantial additional funds must be targeted to schools serving low-income students which can be spent at the discretion of the LSC. In the current school year, the average school has gained about $400,000 in new discretionary money that they didn't have before school reform."

[19] William Glasser, MD..; The Quality School: Managing Students without Coercion; Harper and Row, New York; 1990 (p. 1)

[20] William Glasser, M.D.; The Quality School; Managing Students without Coercion; Harper and Row, New York; 1990 (p. 54)

[21] William Glasser, M.D.; The Quality School; Managing Students without Coercion; Harper and Row, New York; 1990 (preface)

[22] Renate Caine and Geoffrey Caine; Making Connections; Teaching and the Human Brain; Association for Supervision and Curriculum Development; Alexandria, Virginia; 1991 (p.14)

[23] Renate Caine and Geoffrey Caine; Making Connections; Teaching and the Human Brain; Association for Supervision and Curriculum Development; Alexandria, Virginia; 1991 (p.8)

[24] Renate Caine and Geoffrey Caine; Making Connections; Teaching and the Human Brain; Association for Supervision and Curriculum Development; Alexandria, Virginia; 1991 (p.113)

[25] Renate Caine and Geoffrey Caine; Making Connections; Teaching and the Human Brain; Association for Supervision and Curriculum Development; Alexandria, Virginia; 1991 (p. 115)

[26] John Lennon; Imagine;

[27] Peter F. Drucker; Post Capitalist Society; Harper Collins Publishers, Inc. 1993 (p. 7)"The new society—and it is already here—is a post-capitalist society. This new society surely, to say it again, will use the free market as the one proven mechanism of economic integration. It will not be an 'anti-capitalist society.' It will not even be a 'non-capitalist society'; the institutions of Capitalism will survive, although some, such as banks, may play quite different roles. But the center of gravity in the post-capitalist society— its structure, its social and economic dynamics, its social classes, and its social problems—is different from the one that dominated the last two hundred and fifty years and defined the issues around which political parties, social groups, social value systems and personal and political commitments crystallized."